Ready, Set, Go!

Ready
Topic: Finding distance and averages.

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Use the number line below to answer the questions.


1. How far away is each of the points on the number line from point $A$ ?
(You need to list each point and its distance from point $A$.)
2. What is the total of all the distances from point $A$ that you found in exercise number one?
3. What is the average distance that any of the given points $B$ through $G$ are from point $A$ ?
4. Which point on the number line is located the average distance away from point $A$ ?
5. Label another location on the number line that is the average distance away from point $A$.
(Call it point X)
6. How far away is each of the points on the number line from point $D$ ?
(You need to list each point and its distance from point D.)
7. What is the total of all the distances from point $D$ that you found in exercise number six?
8. What is the average distance that any of the six other points are from point $D$ ?
9. Is there a point on the number line located the average distance away from point $D$ ?
10. Label another location on the number line that is the average distance away from point $D$ ? (Call it point $Y$ )

Set
Topic: Scatter Plots and line of best fit or trend lines.
11. Create a scatter plot for the data in the table.

| English Score | History Score |
| :---: | :---: |
| 60 | 65 |
| 53 | 59 |
| 44 | 57 |
| 61 | 61 |
| 70 | 67 |


12. Do the English and History scores have a positive or negative correlation?
13. Do English and History scores have a strong or weak correlation?
14. Which of the graphs below shows the best model for the data and will create the best predictions? Circle your choice and say why it is the best model for the data.


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15. Which of the graphs below shows the best model for the data and will create the best predictions? Circle your choice and say why it is the best model for the data.

16. Which of the graphs below shows the best model for the data and will create the best predictions? Circle your choice and say why it is the best model for the data.


Go
Topic: Creating explicit functions for arithmetic and geometric sequences.
In each problem below an input connected output are given along with either the common difference or the common ratio. Use this information to create an explicit function for the sequence.
17. $f(2)=7$, common difference $=3$
18. $g(1)=8$, common ratio $=2$
19. $h(6)=3$, common ratio $=-3$
20. $r(5)=3$, common difference $=7$
21. $g(7)=1$, common difference $=-9$
22. $g(1)=5$, common ratio $=\frac{1}{2}$

